

**THE PEDESTRIAN COMMUNITY:
THE ROLE
OF THE PROVINCIAL GOVERNMENTS
TO IMPROVE TRAFFIC SAFETY**

by

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1 INTRODUCTION

Currently, South Africa finds itself in the midst of a transitional period in respect of central, provincial and local government. Apart from a redefinition of the functions of each level, the functions within each level are also being scrutinized in order to optimise government levels and services.

The Constitutional Transformation Project (Consolidated Report) (par 2.3.4) [1] states that the assumption of the road traffic safety function by the provinces will be facilitated by the fact that the regional offices of the Directorate Traffic Safety will be placed under provincial control. At the same time, the provinces will have to see to the integration of the road traffic safety personnel of the former TBVC-states and self-governing states within the new administration.

No mention is made in the Constitution to road traffic safety, but the Reconstruction and Development Programme [2] is more specific and give some guidance, eg.:

- The previous transport policy "largely ignored the country's outrageous road safety record" (par 2.9.1);
- "A future transport policy must promote road safety" (par 2.9.3); and
- "Central government funds allocated to ameliorate this situation via education, enforcement and engineering have been negligible. Road safety must be given the priority it deserves. The transport authorities (central, provincial and local) must be charged with the task of reducing accidents and must be given the funds to achieve that goal" (par 2.9.8).

It is therefore clear that all levels of government must establish a specialised and competent multi-disciplinary road traffic safety work force and provide adequate resources if the above requirements of the RDP are to be met.

The objectives of the paper are fourfold. They are:

- to give an overview of the road traffic safety situation in the Free State Province;
- to illustrate the need to have a specialised and competent traffic safety work force focused on solving the traffic safety problem by means of a holistic and multi-disciplinary approach. The pedestrian, as a specific road user group, is used as example to illustrate how the road traffic safety problem should be tackled;
- to discuss some of the functions needed to maintain acceptable standards for road traffic safety on the provincial government level; and
- to suggest how the community can be involved to improve road traffic safety.

2 ROAD TRAFFIC SAFETY IN THE FREE STATE PROVINCE

2.1 Introduction

A comparison of the road traffic safety situation for the 9 new provinces for 1992 and 1993 is given in Appendix A. These figures were calculated by re-arranging the data on the magnetic tapes of the Central Statistical Service according to the new provincial boundaries. These

statistics, however, are provisional since the figures of the former TBVC-states are not yet incorporated. It do, however, include the road collision statistics of the former self-governing states and is therefore more conclusive in the case of the Free State Province since the figures for Qwaqwa are included. The section of the former Bophuthatswana (now part of the Free State Province), however, is not included. The objective is not to compare the 9 provinces since the data is still incomplete, but rather to understand the extent of the road traffic safety problem in the Free State Province.

2.2 Road collisions and casualties

Tables 1 and 2 in Appendix A contain the road collision and casualty figures by province for 1992 and 1993. The following conclusions regarding the Free State Province are derived from these statistics:

- Looking at road collisions, in 1992 and 1993, about 5 per cent of all the road collisions, 8,5 per cent of all fatal collisions and about 6,5 per cent of all the serious injury collisions in the RSA occurred in the Free State Province;
- Analysed in terms of road casualties, more than 900 people (951 in 1992 and 902 in 1993) are killed on roads in the Free State Province every year. When the figures for the former Bophuthatswana are included the figure may still be higher. This means that about 7,5 per cent of all casualties, 9,5 per cent of all the road fatalities, and 7,5 per cent of all the serious injuries in 1992 and 1993 occurred in the Free State Province.

The collision and casualty figures for the Free State Province as a proportion of the RSA figures are summarised below:

<u>Severity</u>	<u>Collisions (%)</u>	<u>Casualties (%)</u>
Fatal	8,5	9,5
Serious	6,5	7,0
Slight	6,5	7,0
Damage only	5,0	-
Total	5,0	7,5

2.3 Road collisions and casualties on rural roads

Table 3 in Appendix A gives the rural collisions and casualties for the 9 provinces in 1992. When analysed in conjunction with Table 1, the following conclusions are relevant for the Free State Province:

- Looking at road collisions, about 6 000 (25 %) of the 24 000 road collisions in the province occurred on rural roads. Sixty-five (65) per cent of all fatal collisions, 37 per cent of all road collisions involving serious injury occurred on rural roads.
- About 50 per cent of all road casualties, three-quarters (72,5%) of all the road fatalities and more than half (53,5%) of the serious injuries occurred on rural roads.

The collision and casualty figures for rural roads in the Free State Province, expressed as a proportion of the total Free State Province figures are summarised below:

<u>Severity</u>	<u>Collisions (%)</u>	<u>Casualties (%)</u>
Fatal	65,0	72,5
Serious	37,0	53,5
Slight	35,0	46,0
Damage only	20,0	-
Total	25,0	50,5

2.4 Road collisions by vehicle type

Table 4 in Appendix A shows the involvement of the different types of vehicles in road collisions in 1992. Altogether 38 163 vehicles were involved of which the more important categories were as follows:

<u>Type of vehicle</u>	<u>Free State (%)</u>	<u>RSA (%)</u>
Motor cars	62,2	66,7
LDV's	16,6	14,1
Mini-buses	9,3	8,3
Heavy vehicles	5,4	5,0
Motor cycles	1,8	1,4
Bicycles	1,4	1,1
Buses	0,8	1,3
Tractors	0,5	0,2
Other	2,0	1,9
Total	100,0	100,0

The figures for the Free State Province are very similar to those of the RSA. The involvement of motor cars in road collisions is slightly less than the national average whereas LDV's, mini-buses, heavy vehicles, motor cycles, etc. are slightly above the national average.

2.5 Casualties by road user

Road fatalities and injuries respectively by road user type for 1992 according to the 9 provinces are given in Tables 5 and 6 in Appendix A.

In 1992, altogether 951 people were killed in the Free State Province in road traffic collisions. Of these fatalities, 263 (27,6%) were drivers, 381 (40,1%) were passengers and 307 (32,3%) were pedestrians. In the same year, altogether 8 256 people were injured in the Free State Province in road traffic collisions. Of those injured, 3 137 (38,0%) were drivers, 3 643 (44,1%) were passengers and 1 476 (17,8%) were pedestrians.

The casualties by road users in the Free State Province in 1992 are summarised below:

<u>Road user group</u>	<u>Fatalities (%)</u>	<u>Injuries (%)</u>
Drivers	28	38
Passengers	40	44
Pedestrians	32	18

The next section deals with the contributing factors to pedestrian collisions and will also show how the problem could be solved through applying the systems approach to road traffic safety.

3 CONTRIBUTING FACTORS TO PEDESTRIAN COLLISIONS

Research [3] showed that various factors can contribute directly or indirectly to pedestrian collisions. These factors can be divided into three categories, namely those related to an inadequate road environment, human failure (unacceptable road user behaviour) and insufficient law enforcement and adjudication. Some examples of contributing factors will be given under each of these headings.

3.1 Inadequate road environment

Absence of pedestrian crossings or refuge islands, inadequate pedestrian signals or pedestrian clearance phases at intersections, lack of paved footways in urban areas and at specific places in rural areas, lack of street kerbing, lack of street lighting at places such as on town fringes, poor maintenance and drainage of road shoulders, road authorities often reluctant to impose regulatory speed limits on roads to safeguard pedestrians, bus stops not properly laid out, road signing inconsistent, insufficient provision for pedestrians at bridges and in cuttings.

3.2 Human failure

Poor judgement of vehicles speed and gaps between vehicles, not visible at night, walking on the roadway, alcohol and drug impaired pedestrians and drivers, drivers not giving way to pedestrians at designated places, drivers not slowing down in speed zones, jaywalking, speeding in general.

3.3 Insufficient law enforcement and adjudication

Identification of offenders, lack of enforcement personnel, inadequate legislation, lower priority to "less important" traffic offences.

The question now arises how can this problem be dealt with in an effective manner to reduce the number of pedestrians killed or injured in the Free State Province. The answer lies in the development and implementation of a holistic management plan to safeguard pedestrians. Such a management plan has to involve all the relevant role players in order to address the pedestrian problem.

4 THE NEED FOR A PEDESTRIAN MANAGEMENT PLAN

4.1 Introduction

The purpose of the Traffic Management System (TMS) [4] is to create a structure for a systematic approach to traffic safety. Traffic safety in South Africa can be divided into 4 main disciplines, with 11 functional areas:

Engineering

- Road environment

Education

- Driver safety education
- Driver training
- Marketing and mass communication

Traffic law enforcement

- Legislation
- Traffic policing
- Adjudication

Logistics

- Research, development and implementation
- Registration and licensing
- Traffic information
- Medical, fire brigade and other emergency services

4.2 Pedestrian management plan

The pedestrian, as a specific road user group, is used as example to illustrate how the road traffic safety problem should be tackled through the TMS by means of the systems approach. The actions to be taken in respect of each of the functional areas to address the pedestrian problem are illustrated below.

4.2.1 Road environment

The roads authorities in the province must ensure that adequate facilities are provided for pedestrians alongside and across roads in urban and rural areas according to the Pedestrian Facility Manual [5] and Walk Alive [6]. Research showed that the lack of pedestrian facilities very often contributes to collisions involving pedestrians.

4.2.2 Traffic safety education

Special measures must be taken by the Safety Section of the province to ensure that all relevant target groups are educated with regard to traffic safety, such as school children, adults in rural areas, mine workers, etc. Specially trained people are required to do this education and facilities in rural areas such as health clinics and community centres can be used to educate adults.

4.2.3 Driver training

Driver training schools must sensitise drivers about the rights and needs of pedestrians as part of their training programme.

4.2.4 Marketing and mass communication

About 10 million radios and 1 million TV set are available in South Africa. Especially the radio can be used very effectively to reach target groups not yet exposed to the electronic media. The Safety Section of the province must use these media as well as other printed media to convey specific traffic safety messages.

4.2.5 Legislation

The provincial legislator must promulgate adequate and effective legislation to ensure that both drivers and pedestrians respect each others rights and safety on the road. Examples are: legislation to prosecute drunken pedestrians on the road, a points demerit system for traffic offences.

4.2.6 Traffic policing

Traffic policing is of utmost importance to ensure safe traffic flow. The provincial and local traffic sections should use selective traffic law enforcement techniques (traffic violation monitoring) to reduce traffic violations which leads to road collisions, eg. drivers nor adhering to pedestrian right of way at pedestrian crossings, unsafe crossing of the road (jaywalking), pedestrians not obeying traffic signals, regular speed checks in areas where large numbers of pedestrians cross roads, both in urban and rural areas.

4.2.7 Adjudication

Deficiencies in the adjudication process very often negates the efforts of traffic law enforcement. Traffic violations of "lesser importance" such as parking tickets, seat belt offences and jaywalking are very often not dealt with properly by the courts. Special efforts must be instituted to ensure that each traffic ticket issued is followed up and dealt with by the courts.

4.2.8 Research

Research needs regarding pedestrians must be identified by the provincial officials in consultation with the communities. Research organisations can then be invited to submit research proposals.

4.2.9 Registration and licensing

The roadworthiness of vehicles, eg. brakes, tires, lights, suspension, etc. is important to ensure that collisions are avoided should a dangerous situation arise, whether it is a pedestrian running across the road or another vehicle. All road traffic sections within the province must on a regular basis do spot checks for roadworthiness. The licensing of drivers is essential to ensure that people with lack of driving skills or other deficiencies such as night blindness or poor vision, are not creating a hazard on the road.

4.2.10 Traffic information

Proper traffic data bases are necessary to identify hazardous locations on the road, vulnerable groups, etc. This in turn implies that the data provided through the accident reporting system must be accurate and complete.

4.2.11 Medical and other emergency services

The time lapse between a collision and medical treatment has a major impact on the survival rate of road victims. The ambulance and emergency services must be pro-active in identifying the so called hazardous road section or locations to deploy resources effectively. In rural areas where emergency medical services are not always available on short notice, the training of the local population in first-aid techniques can provide an important backup system until emergency teams arrive on the scene of the collision. First-aid organisations can play a major role in this regard.

The co-ordination of the activities of the various role players as illustrated above, requires that a Road Safety Section should be established. This section must draw up a traffic safety management plan for the province with specific action plans, e.g. to solve the pedestrian problem. Such plans must be budgeted for in the provincial budgets. The need to employ or train existing road safety personnel as traffic safety practitioners (road safety officer with specialised multi-disciplinary background) is also evident.

5 TRAFFIC SAFETY FUNCTIONS ON THE PROVINCIAL GOVERNMENT LEVEL

One of the objectives of the paper is to discuss some of the functions needed to maintain acceptable standards for road traffic safety on the provincial government level.

Maree [7] presented a paper at the PRI Congress in Cape Town in October 1994, outlining the proposed roles of the different government levels with regard to road traffic safety in the new dispensation. The main points of the paper relating to the provinces, can be summarised as follows:

- Each province must have a Directorate of Traffic Safety under the Department of its choice (Transport is proposed);
- Each province must develop a policy on road traffic safety;
- Each province must develop a Traffic Safety Management Plan for submission to the national Department of Transport;
- The Traffic Safety Management Plan should be based on a thorough scrutiny of the traffic safety problems in the province. Problems should be prioritised;
- The Traffic Safety Management Plan must consist of action plans for the solution of each of the most important traffic safety problems in the province;
- The Traffic Safety Management Plan must be drawn up by the provincial Department of Transport, plus an advisory committee to the Department, which should consist of representatives from provincial Departments of Education, Health, Safety and Security, Social Welfare, Environment, Agriculture, Housing, Tourism and Local Government. The SAPS and representatives from local forums should also be represented;
- The province must budget on the basis of the Traffic Safety Management Plan;
- The provincial Department of Transport must, through its Directorate Traffic Safety, provide assistance to local authorities for the drawing up of traffic safety management plans; and
- The provincial Department of Transport must allocate funds on the basis of the traffic safety management plans received from the local authorities.

6 COMMUNITY INVOLVEMENT IN PEDESTRIAN SAFETY

The previous section basically dealt with a top-down approach to reduce the number of pedestrian casualties. The bottom-up approach is equally important to understand the needs of the community. Very often the community can provide useful inputs to improve traffic safety. In the final instance it is the community's attitudes and opinions that must change if any road traffic safety action or campaign is to be successful.

The need for public participation is not a new concept in South Africa, but needs to be defined in terms of its relevancy to enhance traffic safety in communities. Very often people find it difficult to see traffic safety as a priority while other basic issues such as housing, sanitation,

education or potable water supplies are not yet addressed. However, to disregard traffic safety due to other priorities, will only aggravate the situation in the long-run. The Division of Roads and Transport Technology of the CSIR [7] has proposed the concept of the road safety community officer that could work hand-in-hand with the traffic safety practitioner to articulate the needs of the local communities. This officer will have to be employed by the local authority, and will have to built links between the communities and the local authorities. Liaison with the communities on behalf of the local authority and the forming of local road traffic safety committees will be some of the prime functions. The road traffic safety community officer should be stationed in the community it serves. The officer can also explain local, provincial and national policies and standards to communities.

7 SUMMARY

The main aspects of the paper can be summarised as follows:

- * The paper has pinpointed some of the primary road traffic safety problems in the Free State Province. The disproportionate high casualty rate on rural roads is one of the major problems.
- * The need to improve the outrageous road traffic safety record in South Africa is highlighted in the Reconstruction and Development Programme. This implies that special measures will have to be taken on all government levels to ensure that "road safety be given the priority it deserves" (par 2.9.8, RDP).
- * No simplistic solutions must be sought to improve the poor road traffic safety record in South Africa. The problem can only be solved by means of a holistic or systems approach. The fragmented efforts of the past must not be repeated. Solutions to the traffic safety problem should be based on a multi-disciplinary approach as contained in the Traffic Management System.
- * The systems approach requires that a specialised workforce with a multi-disciplinary background exists and that ample resources are available to deal effectively with the road traffic safety problem. It is therefore essential that a Traffic Safety Section should be established in each province under the Department of its choice to co-ordinate traffic safety activities.
- * Each province through its Traffic Safety Section should develop a Traffic Safety Management Plan. The plan should be based on the road traffic safety problems in the province, must recommend action plans for the solution of the most important traffic safety problems in the province, and make provision in the budget for the execution of these action plans.
- * Each province must also provide assistance to local authorities for the drawing up of similar traffic safety management plans. The involvement of the community in the development of management plans is important to ensure legitimacy and support.
- * The complexity of the road traffic safety problem also requires that specially trained people must be available to guide the road safety programmes on national, provincial and local levels. The Directorate Traffic Safety of the national Department of Transport has initiated the Diploma in Traffic Safety Management which will commence in 1996 at

technikon level.

8 REFERENCES

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- 6 DEPARTMENT OF TRANSPORT. DIRECTORATE TRAFFIC SAFETY. Walk Alive - Working document to assist authorities in the management of pedestrian safety in South Africa. National Pedestrian Safety Committee.
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APPENDIX A

**ROAD COLLISION AND CASUALTY STATISTICS
FOR THE 9 PROVINCES**

TABLE 1: COLLISIONS AND CASUALTIES PER NEW PROVINCE - 1992

Province	COLLISIONS					CASUALTIES				
	Fatal	Serious	Slight	Damage	Total	Killed	Serious	Slight	Total	
Western Cape	1143	2256	11255	64090	78744	1344	3532	15780	20656	
Eastern Cape	585	1349	4286	20138	26358	757	2132	6491	9380	
Northern Cape	242	398	1096	4726	6462	307	675	1898	2880	
Free State	717	1263	3522	18675	24177	951	2327	5929	9207	
KwaZulu/Natal	1840	3622	10151	64560	80173	2251	6220	15681	24152	
North West	456	783	1670	9699	12608	562	1542	3004	5108	
Gauteng	2072	7961	19223	159028	188284	2317	11153	26933	40403	
Eastern Transvaal	766	1318	2363	13782	18229	948	2515	4379	7842	
Northern Transvaal	552	1233	1605	10449	13839	691	2646	3385	6722	
Total	8373	20183	55171	365147	448874	10128	32742	83480	126350	

TABLE 2: COLLISIONS AND CASUALTIES PER NEW PROVINCE - 1993

Province	COLLISIONS					CASUALTIES				
	Fatal	Serious	Slight	Damage	Total	Killed	Serious	Slight	Total	
Western Cape	1070	2203	11660	58733	73666	1263	3379	15944	20586	
Eastern Cape	572	1322	4397	20101	26392	663	2081	6586	9330	
Northern Cape	233	471	1126	4443	6273	267	809	1957	3033	
Free State	695	1366	3804	17934	23799	902	2564	6216	9682	
KwaZulu/Natal	1712	3558	9977	61993	77240	1992	6223	15819	24034	
North West	453	678	1694	9440	12265	553	1301	2837	4691	
Gauteng	1875	8132	19241	152412	181660	2179	11692	27323	41194	
Eastern Transvaal	801	1435	2628	13580	18444	994	2809	4843	8646	
Northern Transvaal	521	1248	1703	10500	13972	653	2658	3507	6818	
Total:	7932	20413	56230	349136	433711	9466	33516	85032	128014	

NB: Matlvis Bay not included

TABLE 3: RURAL COLLISIONS AND CASUALTIES PER NEW PROVINCE - 1992

Province	COLLISIONS					CASUALTIES				
	Fatal	Serious	Slight	Damage	Total	Killed	Serious	Slight	Total	
Western Cape	432	468	1261	3866	6027	584	1108	2641	4333	
Eastern Cape	256	252	764	2526	3798	380	672	1753	2805	
Northern Cape	178	181	554	1698	2611	233	393	1154	1780	
Free State	469	470	1235	3766	5940	690	1244	2731	4665	
KwaZulu/Natal	851	1018	1805	7813	11487	1090	2497	4065	7652	
North West	359	391	790	2836	4376	446	913	1723	3082	
Gauteng	253	266	587	2267	3373	297	633	1038	1968	
Eastern Transvaal	535	670	1193	4946	7344	674	1551	2687	4912	
Northern Transvaal	430	826	960	4966	7182	538	1955	2289	4782	
Total:	3763	4542	9149	34684	52138	4932	10966	20081	35979	

TABLE 4: VEHICLE INVOLVEMENT IN ROAD COLLISIONS BY NEW PROVINCE: 1992

Province	Light vehicle	Minibus	LDV	Heavy vehicle	Articul. vehicle	Bus	Motor Cycle	Bicycle	Animals towed	Tractor	Other	Unknown	Total
Western Cape	90942	8740	16510	5 543	178	1648	1559	2012	79	196	177	1403	128987
Eastern Cape	25898	4286	6419	1 926	71	399	655	496	26	101	82	573	40932
Northern Cape	5279	597	2048	578	34	79	84	219	20	52	23	96	9109
Free State	23753	3535	6369	2 065	82	324	694	540	41	199	52	507	38163
KwaZulu/Natal	84541	10979	19969	7 607	785	3398	2039	927	25	426	146	2038	132880
North West	11586	1955	3676	1 104	19	210	207	347	22	109	34	234	19503
Gauteng	230174	26908	39480	15 097	762	3341	4994	3053	70	299	322	4156	328656
Eastern Transvaal	15311	2528	5876	1 894	71	332	298	364	18	187	39	532	27450
Northern Transvaal	10075	2189	5039	1 402	54	212	190	213	27	94	51	358	19895
Total:	497559	61717	105386	37 216	2047	9943	10720	8171	328	1663	926	9899	745575

TABLE 5: FATALITIES BY ROAD USER GROUP PER NEW PROVINCE - 1992

Province	Driver	%	Passenger	%	Pedestrian	%	Total	%
Western Cape	321	12,6	362	11,5	675	15,2	1358	13,4
Eastern Cape	178	7,0	268	8,5	311	7,0	757	7,5
Northern Cape	108	4,2	111	3,5	88	2,0	307	3,0
Free State	263	10,3	381	12,1	307	6,9	951	9,4
Kwazulu/Natal	415	16,2	707	22,5	1126	25,3	2248	22,2
North West	164	6,4	201	6,4	197	4,4	562	5,5
Gauteng	627	24,5	471	15,0	1219	27,4	2317	22,9
Eastern Transvaal	282	11,0	358	11,4	308	6,9	948	9,3
Northern Transvaal	196	7,7	282	9,0	213	4,8	691	6,8
Total:	2554		3141		4444		10139	

TABLE 6: ROAD CASUALTIES BY ROAD USER GROUP (FATALITIES AND INJURIES) PER NEW PROVINCE - 1992

Province	Driver	%	Passenger	%	Pedestrian	%	Total	%
Western Cape	7503	15,8	6579	14,1	6613	20,5	20695	16,4
Eastern Cape	2953	6,2	3481	7,5	2964	9,2	9380	7,4
Northern Cape	1077	2,3	1276	2,7	527	1,6	2880	2,3
Free State	3400	7,2	4024	8,6	1783	5,5	9207	7,3
Kwazulu/Natal	7740	16,3	9351	20,1	7022	21,7	24113	19,1
North West	1873	3,9	2372	5,1	863	2,7	5108	4,0
Gauteng	17698	37,3	12285	26,4	10420	32,3	40403	32,0
Eastern Transvaal	2945	6,2	3644	7,8	1253	3,9	7842	6,2
Northern Transvaal	2294	4,8	3572	7,7	856	2,7	6722	5,3
Total:	47465		46584		32301		126350	